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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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Gerrit Frederik Magdalena De Poortere

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BRIARCLIFF MANOR, NY 10510

EXAMINER

MONIKANG, GEORGE C

ART UNIT

PAPER NUMBER

2614

MAIL DATE

DELIVERY MODE

05/18/2009

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/565,815	Applicant(s) DE POORTERE, GERRIT FREDERIK MAGDALENA	
	Examiner GEORGE C. MONIKANG	Art Unit 2614	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03 March 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
 4a) Of the above claim(s) 4 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3 and 5-10 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☒ Certified copies of the priority documents have been received in Application No. 10/565,815.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date: _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date: _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

1. Applicant's arguments filed 3/3/2009 have been fully considered but they are not persuasive.
2. With regard to applicant's arguments that the Hermann reference fails to teach a gain dispatcher unit that allocates a maximal allowable gain based on the available headroom, the examiner maintains his stand. The Hermann reference discloses allocating a maximum allowable gain (available headroom) and a programmable gain that has to be within the limit of the maximum allowable gain (Hermann, fig. 7: 48-49; col. 4, lines 8-33). The programmable gain is allocated on the basis of available maximum gain.

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.

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4. Considering objective evidence present in the application indicating obviousness or nonobviousness.
2. Claims 1-2 & 8-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Zwicker et al, US Patent 4868881, in view of Hermann, US Patent 6360187 B1. (Zwicker et al is cited in IDS filed 8/15/2007).

Re Claim 1, Zwicker et al discloses an audio conditioning apparatus for conditioning an audio signal to be output (abstract), said audio conditioning apparatus comprising: an input for receiving the audio signal (fig. 1: 1); a noise characterizing unit determining a noise level of environmental noise (abstract); a volume amplification unit to said input for amplifying a volume of the audio signal, by a volume gain in dependence on the noise level characterized a further noise characterizing unit determining a further noise level of the environmental noise in a bass frequency noise band or a treble frequency noise band (fig. 2: 300 & 301; col. 5, lines 32-50: senses the noises of each frequency band and compensates for them individually by increasing the amplitude) and a further amplification unit amplify coupled to said volume amplification, unit for amplifying by a further gain the amplitude of frequency components in a bass frequency audio band a treble frequency audio band of the audio signaling dependence of the further noise level the base or treble frequency band (fig. 2: 300 & 301; col. 5, lines 32-50: senses the noises of each frequency band and compensates for them individually by increasing the amplitude), but fails to disclose a gain dispatcher unit coupled to said input for allocating a maximum allowable gain of the volume amplification unit and the further amplification unit on the basis of available headroom for amplification. However, discloses allocating a maximum allowable gain (available

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headroom) and a programmable gain that has to be within the limit of the maximum allowable gain (*Hermann, fig. 7: 48-49; col. 4, lines 8-33*). It would have been obvious to use the gain allocating capabilities of Hermann (*Hermann, fig. 7: 48-49; col. 4, lines 8-33*) to allocate maximal gain limits for the audio conditioning apparatus of Zwicker et al for the purpose of producing sound levels that could compensate for ambient noise.

Re Claim 2, the combined teachings of Zwicker et al and Hermann disclose an audio conditioning apparatus as claimed in claim 1, wherein an upper limit of the bass frequency audio band substantially lies in the range of 60 to 150 Hz, and wherein a lower limit of the treble frequency audio band substantially lies in the range of 8 kHz to 12 kHz (*Zwicker et al, col. 4, lines 10-20*).

Re Claim 8, the combined teachings of Zwicker et al and Hermann disclose an audio reproduction apparatus, comprising: a loudspeaker for reproduction of the audio signal (*Zwicker et al, fig. 1: 6 & 7*); an access to an input audio signal on which the audio signal is based (*Zwicker et al, abstract*); and the audio conditioning apparatus (*Zwicker et al, abstract*) as claimed in claim 1.

Claims 9 & 10 have been analyzed and rejected according to claim 1.

3. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Zwicker et al, US Patent 4868881 and Hermann, US Patent 6360187 B1 as applied to claim 1 above, and further in view of Kuusama, US Patent 5509081. (Kuusama is cited in IDS filed 8/15/2007)

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Re Claim 3, the combined teaching of Zwicker et al and Hermann disclose an audio conditioning apparatus as claimed in claim 1, but fail to disclose wherein said audio conditioning apparatus further comprises: a gain consistency unit is coupled to said noise characterizing unit and said further noise characterization unit for yielding a gain consistently varying in time, according to a predetermined mathematical criterion as taught in Kuusama (Kuusama, col. 3, lines 17-38). It would have been obvious to use the gain consistency unit of Kuusama (Kuusama, col. 3, lines 17-38) with the audio conditioning apparatus of Zwicker et al and Hermann for the purpose of providing different time constants for the gain.

4. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Zwicker et al, US Patent 4868881 and Hermann, US Patent 6,360,187 B1 as applied to claim 1 above, and further in view of Bohn, US Patent 5046105. (Bohn is cited in IDS filed 8/15/2007)

Re Claim 5, the combined teaching of Zwicker et al and Hermann disclose an audio conditioning apparatus as claimed in claim 1, but fail to disclose wherein the further amplification unit comprises a shelving filter as taught in Bohn (Bohn, col. 8, lines 56-60). It would have been obvious to use the amplification unit comprising a shelving filter of Bohn (Bohn, col. 8, lines 56-60) with the audio conditioning apparatus of Zwicker et al and Hermann for the purpose of causing the amplitude versus frequency response characteristics of the audio signal to exhibit the shape of a shelf.

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5. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Zwicker et al, US Patent 4868881 and Hermann, US Patent 6360187 B1 as applied to claim 1 above, and further in view of Takahashi et al, US Patent 6891954 B2.

Re Claim 6, Zwicker et al discloses an audio conditioning apparatus as claimed in claim 1, wherein said audio conditioning apparatus is connectable to a loudspeaker usable for reproduction of the audio signal (Zwicker et al, fig. 1: 6 & 7), an environmental noise being measurable by a microphone (Zwicker et al, abstract); but fail to disclose wherein said audio conditioning apparatus further comprises an active noise canceling unit for substantially canceling environmental noise in a cancellation band of frequencies as taught in Takahashi et al (Takahashi et al, abstract). It would have been obvious to use the noise canceling unit of Takahashi et al (Takahashi et al, abstract) with the audio conditioning apparatus of Zwicker et al and Hermann for the purpose of canceling the surrounding noise.

Zwicker et al, hermann and Takahashi et al fail to disclose the loudspeaker being a headphone. Official notice is taken that both the concepts and advantages of providing headphone loudspeakers are well known in the art. It would have been obvious to use headphones since they are commonly used as portable speakers.

6. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Zwicker et al, US Patent 4868881, Hermann, US Patent 6360187 B1 and Takahashi et al, US Patent 6891954 B2 as applied to claim 6 above, and further in view of Philipsson et al, US Patent 7006624 B1.

Re Claim 7, Zwicker et al, hermann and Takahashi et al disclose an audio conditioning apparatus as claimed in claim 6, but fail to disclose wherein said audio conditioning apparatus further comprises a distance measuring device for measuring a distance between the microphone and the loudspeaker as taught in Philipsson et al (*Philipsson et al, col. 4, lines 32-41*). It would have been obvious to use the distance measuring device of Philipsson et al (*Philipsson et al, col. 4, lines 32-41*) with the audio conditioning apparatus of Zwicker et al, Hermann and Takahashi et al for the purpose of controlling the gain.

Zwicker et al, Hermann, Takahashi et al and Philipsson et al fail to disclose the loudspeaker being a headphone. Official notice is taken that both the concepts and advantages of providing headphone loudspeakers are well known in the art. It would have been obvious to use headphones since they are commonly used as portable

Conclusion

3. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

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the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to GEORGE C. MONIKANG whose telephone number is (571)270-1190. The examiner can normally be reached on M-F. alt Fri. Off 7:30am-5:00pm (est).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chin Vivian can be reached on 571-272-7848. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/George C Monikang/
Examiner, Art Unit 2614

5/13/2009

/Vivian Chin/
Supervisory Patent Examiner, Art Unit 2614